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NEWS 3 FEB 25 CA/CAPLUS - Russian Agency for Patents and Trademarks
(ROSPATENT) added to list of core patent offices covered
NEWS 4 FEB 28 PATDPAFULL - New display fields provide for legal status
data from INPADOC
NEWS 5 FEB 28 BABS - Current-awareness alerts (SDIs) available
NEWS 6 FEB 28 MEDLINE/LMEDLINE reloaded
NEWS 7 MAR 02 GBFULL: New full-text patent database on STN
NEWS 8 MAR 03 REGISTRY/ZREGISTRY - Sequence annotations enhanced
NEWS 9 MAR 03 MEDLINE file segment of TOXCENTER reloaded
NEWS 10 MAR 22 KOREAPAT now updated monthly; patent information enhanced
NEWS 11 MAR 22 Original IDE display format returns to REGISTRY/ZREGISTRY
NEWS 12 MAR 22 PATDPASPC - New patent database available
NEWS 13 MAR 22 REGISTRY/ZREGISTRY enhanced with experimental property tags
NEWS 14 APR 04 EPFULL enhanced with additional patent information and new
fields
NEWS 15 APR 04 EMBASE - Database reloaded and enhanced
NEWS 16 APR 18 New CAS Information Use Policies available online
NEWS 17 APR 25 Patent searching, including current-awareness alerts (SDIs),
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applications.
NEWS 18 APR 28 Improved searching of U.S. Patent Classifications for
U.S. patent records in CA/CAplus

NEWS EXPRESS JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT
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AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005

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* * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 13:23:55 ON 29 APR 2005

=> FIL .ELIZ

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| SINCE FILE
ENTRY | TOTAL
SESSION |
|---------------------|------------------|
| 0.21 | 0.21 |

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FILE 'BIOTECHNO' ENTERED AT 13:24:15 ON 29 APR 2005

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=> S AMYLASE AND BACILLUS

L1 15714 AMYLASE AND BACILLUS

=> S L1 AND KSM AP1378

L2 30 L1 AND KSM AP1378

=> S L2 AND (GENE OR SEQUENCE)

7 FILES SEARCHED...

L3 19 L2 AND (GENE OR SEQUENCE)

=> DUP REM L3

PROCESSING COMPLETED FOR L3

L4 11 DUP REM L3 (8 DUPLICATES REMOVED)

=> D 1-11

L4 ANSWER 1 OF 11 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 1

AN 2003-09677 BIOTECHDS

TI Novel variant of parent Termamyl-like alpha- ***amylase*** useful for
starch liquefaction, washing and/or dishwashing, has alpha-
amylase activity and exhibits altered properties relative to the
parent alpha- ***amylase***;
vector-mediated ***gene*** transfer and expression in host cell
for recombinant protein production

AU SVENDSEN A; ANDERSEN C; THISTED T; VON DER OSTEN C

PA NOVOZYMES AS

PI WO 2002092797 21 Nov 2002

AI WO 2002-DK319 15 May 2002

PRAI DK 2001-1443 2 Oct 2001; DK 2001-760 15 May 2001

DT Patent

LA English

OS WPI: 2003-175077 [17]

L4 ANSWER 2 OF 11 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN

AN DUPLICATE 2
 2002-12006 BIOTECHDS
 TI Variant of parent Termamyl-like alpha ***amylase*** , useful in detergent compositions, for starch liquefaction, ethanol production, washing and/or dish washing, and textile desizing;
 recombinant enzyme production, vector expression in host cell, polymerase chain reaction and mutagenesis
 AU THISTED T; KJAERULFF S; ANDERSEN C; FUGLSANG C C
 PA NOVOZYMES AS
 PI WO 2002010355 7 Feb 2002
 AI WO 2000-DK488 1 Aug 2000
 PRAI DK 2001-655 26 Apr 2001
 DT Patent
 LA English
 OS WPI: 2002-280633 [32]

L4 ANSWER 3 OF 11 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
 DUPLICATE 3
 AN 2002-15685 BIOTECHDS
 TI New mutant alpha- ***amylase*** , useful in detergent compositions, comprises increased productivity when prepared recombinantly and better resistance to heat;
 recombinant enzyme protein production via plasmid expression in bacterium cell, for surfactant composition and starch liquefaction
 AU ARAKI H; HAGIHARI H; HAYASHI Y; ENDO K; IGARASHI K; OZAKI K
 PA KAO CORP
 PI EP 1199356 24 Apr 2002
 AI EP 2000-123378 11 Oct 2000
 PRAI JP 2000-310605 11 Oct 2000
 DT Patent
 LA English
 OS WPI: 2002-354203 [39]

L4 ANSWER 4 OF 11 HCPLUS COPYRIGHT 2005 ACS on STN
 AN 2002:284478 HCPLUS
 DN 136:305146
 TI Recombinant mutant alkalophilic ***Bacillus*** .alpha.- ***amylase*** with improved thermostability, recombinant expression, and detergent use
 IN Araki, Hiroyuki; Endo, Keiji; Hagiwara, Hiroshi; Igarashi, Kazuaki; Hayashi, Yasuhiro; Ozaki, Katsuya
 PA Kao Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 28 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN. CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | JP 2002112792 | A2 | 20020416 | JP 2000-310605 | 20001011 |
| | US 2002123124 | A1 | 20020905 | US 2001-971611 | 20011009 |
| | US 6743616 | B2 | 20040601 | | |
| | EP 1199356 | A2 | 20020424 | EP 2001-123378 | 20011010 |
| | EP 1199356 | A3 | 20020515 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| | CN 1348000 | A | 20020508 | CN 2001-141253 | 20011011 |
| | US 2004265959 | A1 | 20041230 | US 2004-798278 | 20040312 |
| PRAI | JP 2000-310605 | A | 20001011 | | |
| | US 2001-971611 | A1 | 20011009 | | |

L4 ANSWER 5 OF 11 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
 DUPLICATE 4
 AN 2002-07276 BIOTECHDS
 TI New modified alpha- ***amylase*** derived from the genus ***Bacillus*** and/or is a Termamyl-like alpha- ***amylase*** , which has been pre-oxidized for producing maltodextrin or glucose syrup; useful for food, confectionary, beverage, baking, flavor, animal feed and pharmaceutical
 AU NIELSEN B R; WEIBYE M
 PA NOVOZYMES AS
 PI WO 2001096537 20 Dec 2001

AI WO 2000-DK404 14 Jun 2000
PRAI US 2000-212852 20 Jun 2000
DT Patent
LA English
OS WPI: 2002-098064 [13]

L4 ANSWER 6 OF 11 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 5

AN 2002-07723 BIOTECHDS

TI New variant of parent Termamyl-like alpha- ***amylase*** for use as a component in washing and dishwashing compositions, for textile desizing, for starch liquefaction, and for producing sweeteners and ethanol from starch;

recombinant vector-mediated ***gene*** transfer and expression in fungus or bacterium cell for use in starch liquefaction and surfactant, ethanol and sweetener preparation

AU SVENDSEN A; JORGENSEN C T; NIELSEN B R

PA NOVOZYMES AS

PI WO 2001088107 22 Nov 2001

AI WO 2000-DK323 12 May 2000

PRAI DK 2000-779 12 May 2000

DT Patent

LA English

OS WPI: 2002-106123 [14]

L4 ANSWER 7 OF 11 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN

DUPLICATE 6

AN 2002-11532 BIOTECHDS

TI Novel variant of parent termamyl-like alpha- ***amylase*** useful as a component in washing and dishwashing compositions, for textile desizing, for starch liquefaction, and for producing sweeteners and ethanol from starch;

vector plasmid pJE1-mediated recombinant enzyme ***gene*** transfer and expression in Escherichia coli, surfactant and polymerase chain reaction for use in starch liquefaction, textile industry, sweetener and ethanolpreparation

AU ANDERSEN C; BORCHERT T V; NIELSEN B R

PA NOVOZYMES AS

PI WO 2001066712 13 Sep 2001

AI WO 2000-DK144 8 Mar 2000

PRAI US 2001-271382 26 Feb 2001

DT Patent

LA English

OS WPI: 2002-239612 [29]

L4 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:10699 HCAPLUS

DN 134:82718

TI Mutant .alpha.- ***amylases*** with improved thermal stability for use in detergents

IN Endo, Keiji; Igarashi, Kazuaki; Hayashi, Yasuhiro; Hagihara, Hiroshi; Ozaki, Katsuya

PA Kao Corp., Japan

SO Eur. Pat. Appl., 28 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | EP 1065277 | A1 | 20010103 | EP 2000-111911 | 20000613 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO | | | | |
| | JP 2001054392 | A2 | 20010227 | JP 2000-170517 | 20000607 |
| | CN 1277258 | A | 20001220 | CN 2000-118140 | 20000609 |
| PRAI | JP 1999-163569 | A | 19990610 | | |

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 11 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN

AN 2001-01312 BIOTECHDS

TI A mutant alpha- ***amylase*** ;
plasmid pKF19LAMY-mediated ***gene*** transfer and expression in
Bacillus subtilis for recombinant protein production and
surfactant
PA Kao
LO Japan.
PI JP 2000245466 12 Sep 2000
AI JP 1999-48213 25 Feb 1999
PRAI JP 1999-48213 25 Feb 1999
DT Patent
LA Japanese
OS WPI: 2000-615143 [59]

L4 ANSWER 10 OF 11 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 7
AN 1999-00358 BIOTECHDS
TI ***Bacillus*** derived alpha- ***amylase*** having a mutation at
position 202;
has optimum pH in alkaline conditions and high tolerance to oxidants,
useful for production of surfactant compositions
AU Hatada Y; Ikawa K; Ito S
PA Kao
LO Tokyo, Japan.
PI WO 9844126 8 Oct 1998
AI WO 1998-JP1464 31 Mar 1998
PRAI JP 1997-80299 31 Mar 1997
DT Patent
LA Japanese
OS WPI: 1998-542707 [46]

L4 ANSWER 11 OF 11 HCPLUS COPYRIGHT 2005 ACS on STN
AN 1998:794818 HCPLUS
DN 130:106926
TI Pullulanase mutants of ***Bacillus*** strain ***KSM*** -
AP1378 for preparation of detergents and starch-saccharifying
agents
IN Sumitomo, Nobuyuki; Hatada, Yuji; Ichimura, Takashi; Saito, Kazuhiro;
Kawai, Shuji; Ito, Susumu
PA Kao Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| ----- | ---- | ----- | ----- | ----- |
| PI JP 10327868 | A2 | 19981215 | JP 1997-141596 | 19970530 |
| PRAI JP 1997-141596 | | 19970530 | | |

=> S L1 AND KSM-AP1378

L5 30 L1 AND KSM-AP1378

=> S L5 NOT L2

L6 0 L5 NOT L2

=> S HATADA, ?/AU

L7 3697 HATADA, ?/AU

=> S L7 AND L5

L8 4 L7 AND L5

=> DUP REM L8

PROCESSING COMPLETED FOR L8

L9 2 DUP REM L8 (2 DUPLICATES REMOVED)

=> D 1,2

L9 ANSWER 1 OF 2 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN

DUPLICATE 1

AN 1999-00358 BIOTECHDS

TI ***Bacillus*** derived alpha- ***amylase*** having a mutation at
position 202;
 has optimum pH in alkaline conditions and high tolerance to oxidants,
 useful for production of surfactant compositions
AU ***Hatada Y*** ; Ikawa K; Ito S
PA Kao
LO Tokyo, Japan.
PI WO 9844126 8 Oct 1998
AI WO 1998-JP1464 31 Mar 1998
PRAI JP 1997-80299 31 Mar 1997
DT Patent
LA Japanese
OS WPI: 1998-542707 [46]

L9 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:794818 HCAPLUS
DN 130:106926
TI Pullulanase mutants of ***Bacillus*** strain ***KSM*** -
 AP1378 for preparation of detergents and starch-saccharifying
agents
IN Sumitomo, Nobuyuki; ***Hatada, Yuji*** ; Ichimura, Takashi; Saito,
 Kazuhiro; Kawai, Shuji; Ito, Susumu
PA Kao Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 19 pp.
 CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|-------|----------|-----------------|----------|
| ----- | ----- | ----- | ----- | ----- |
| PI JP 10327868 | A2 | 19981215 | JP 1997-141596 | 19970530 |
| PRAI JP 1997-141596 | | 19970530 | | |

=> D L9

L9 ANSWER 1 OF 2 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 1
AN 1999-00358 BIOTECHDS
TI ***Bacillus*** derived alpha- ***amylase*** having a mutation at
position 202;
 has optimum pH in alkaline conditions and high tolerance to oxidants,
 useful for production of surfactant compositions
AU ***Hatada Y*** ; Ikawa K; Ito S
PA Kao
LO Tokyo, Japan.
PI WO 9844126 8 Oct 1998
AI WO 1998-JP1464 31 Mar 1998
PRAI JP 1997-80299 31 Mar 1997
DT Patent
LA Japanese
OS WPI: 1998-542707 [46]

=> D 1 AB

L9 ANSWER 1 OF 2 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
AB Novel mutated forms of the liquified alkaline alpha- ***amylase***
(EC-3.2.1.1) derived from ***Bacillus*** species KSM-API378 (FERM
BP-3048) are claimed which have methionine at position 202 either deleted
or substituted by another amino acid. The mutated enzyme may have other
mutations but is at least 95.2% homologous to the original enzyme. The
mutated enzyme has optimum pH in alkaline conditions, a high alpha-
 amylase activity, and a high a sustained tolerance to oxidizing
substances. Also claimed are genes encoding the mutated enzyme and
detergent compositions containing it. The enzyme may be used in the
formulation of liquid, powder or granular detergent compositions,
especially those containing bleaches and oxidants as it retains a high
activity in their presence. In an example, the ***Bacillus***
 KSM - ***AP1378*** gene was inserted into pHSPLAMY2 isolated
from the plasmid and introduced into the vector plasmid pKF19K to give

pKF19LAMY. The gene was then mutated at position 202, isolated and inserted into vector plasmid pHSP64 and used to transform

Bacillus subtilis ISW1214. Activity tolerance to hydrogen peroxide was 78% and 4% for the mutated and unmutated enzyme forms respectively. (42pp)

=> DIS HIS

(FILE 'HOME' ENTERED AT 13:23:55 ON 29 APR 2005)

FILE 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCPLUS, NTIS, ESBIOBASE, BIOTECHNO, WPIDS' ENTERED AT 13:24:15 ON 29 APR 2005

L1 15714 S AMYLASE AND BACILLUS
L2 30 S L1 AND KSM AP1378
L3 19 S L2 AND (GENE OR SEQUENCE)
L4 11 DUP REM L3 (8 DUPLICATES REMOVED)
L5 30 S L1 AND KSM-AP1378
L6 0 S L5 NOT L2
L7 3697 S. HATADA, ?/AU
L8 4 S L7 AND L5
L9 2 DUP REM L8 (2 DUPLICATES REMOVED)

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|----------------------|------------------|---------------|
| FULL ESTIMATED COST | 51.71 | 51.92 |

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WEST Search History

DATE: Friday, April 29, 2005

| <u>Hide?</u> | <u>Set Name</u> | <u>Query</u> | <u>Hit Count</u> |
|---|-----------------|--|------------------|
| <i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ</i> | | | |
| <input type="checkbox"/> | L14 | L11 AND L4 | 0 |
| <input type="checkbox"/> | L13 | L11 AND L3 | 1 |
| <input type="checkbox"/> | L12 | L11 AND L2 | 1 |
| <input type="checkbox"/> | L11 | 6638748 | 2 |
| <i>DB=USPT; PLUR=YES; OP=ADJ</i> | | | |
| <input type="checkbox"/> | L10 | US-6486113-B1.did. | 1 |
| <input type="checkbox"/> | L9 | US-6486113-B1.did. | 1 |
| <i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ</i> | | | |
| <input type="checkbox"/> | L8 | L7 AND L4 | 1 |
| <input type="checkbox"/> | L7 | HATADA.IN. | 2160 |
| <input type="checkbox"/> | L6 | L5 NOT L2 | 0 |
| <input type="checkbox"/> | L5 | L1 AND KSM-AP1378 | 26 |
| <input type="checkbox"/> | L4 | L3 AND (MUTANT OR MODIFIED OR VARIANT) | 16 |
| <input type="checkbox"/> | L3 | L2 AND (GENE OR SEQUENCE) | 23 |
| <input type="checkbox"/> | L2 | L1 AND KSM AP1378 | 29 |
| <input type="checkbox"/> | L1 | AMYLASE AND BACILLUS | 8250 |

END OF SEARCH HISTORY

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|---------------|---------------------|-------|----------|-----------|
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| Generate OACS | | | | |

Search Results - Record(s) 1 through 10 of 16 returned.

1. Document ID: US 20040265959 A1

Using default format because multiple data bases are involved.

L4: Entry 1 of 16

File: PGPB

Dec 30, 2004

PGPUB-DOCUMENT-NUMBER: 20040265959
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040265959 A1

TITLE: Highly productive alpha-amylases

PUBLICATION-DATE: December 30, 2004

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|-------------------|---------|-------|---------|---------|
| Araki, Hiroyuki | Tochigi | | JP | |
| Endo, Keiji | Tochigi | | JP | |
| Hagihara, Hiroshi | Tochigi | | JP | |
| Igarashi, Kazuaki | Tochigi | | JP | |
| Hayashi, Yasuhiro | Tochigi | | JP | |
| Ozaki, Katsuya | Tochigi | | JP | |

US-CL-CURRENT: 435/69.1; 435/204, 435/252.3, 435/320.1, 510/320, 536/23.2

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#) | [Claims](#) | [R00C](#) | [Drawn D](#)

2. Document ID: US 20040096952 A1

L4: Entry 2 of 16

File: PGPB

May 20, 2004

PGPUB-DOCUMENT-NUMBER: 20040096952
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040096952 A1

TITLE: Alpha-amylase variant with altered properties

PUBLICATION-DATE: May 20, 2004

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|------------------|----------|-------|---------|---------|
| Svendsen, Allan | Horsholm | | DK | |
| Andersen, Casten | Vaerlose | | DK | |

| | | |
|----------------------|---------------|----|
| Thisted, Thomas | Frederikssund | DK |
| Von Der Osten, Claus | Lyngby | DK |

US-CL-CURRENT: 435/202; 435/252.31, 510/226, 510/320

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#) | [Claims](#) | [KMC](#) | [Drawn D](#)

3. Document ID: US 20040091994 A1

L4: Entry 3 of 16

File: PGPB

May 13, 2004

PGPUB-DOCUMENT-NUMBER: 20040091994

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040091994 A1

TITLE: Alpha-amylase variant with altered properties

PUBLICATION-DATE: May 13, 2004

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|-------------------|----------|-------|---------|---------|
| Andersen, Carsten | Vaerlose | | DK | |

US-CL-CURRENT: 435/202; 435/252.3, 435/320.1, 435/69.1, 510/220, 510/320, 536/23.2

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#) | [Claims](#) | [KMC](#) | [Drawn D](#)

4. Document ID: US 20030211958 A1

L4: Entry 4 of 16

File: PGPB

Nov 13, 2003

PGPUB-DOCUMENT-NUMBER: 20030211958

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030211958 A1

TITLE: Alpha-amylase mutants

PUBLICATION-DATE: November 13, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|---------------------------|------------|-------|---------|---------|
| Svendsen, Allan | Birkerod | | DK | |
| Borchert, Torben Vedel | Copenhagen | | DK | |
| Bisgard-Frantzen, Henrik | Bagsvaerd | | DK | |
| Outtrup, Helle | Ballerup | | DK | |
| Nielsen, Bjarne Ronfeldt | Virum | | DK | |
| Nielsen, Vibeke Skovgaard | Bagsvaerd | | DK | |
| Hedegaard, Lisbeth | Skodsborg | | DK | |

US-CL-CURRENT: 510/226; 435/202, 435/320.1, 435/325, 435/69.1, 510/320, 536/23.2

| | | | | | | | | | | | | |
|----------------------|-----------------------|--------------------------|-----------------------|------------------------|--------------------------------|----------------------|---------------------------|---------------------------|-----------------------------|------------------------|---------------------|----------------------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KMC | Draw |
|----------------------|-----------------------|--------------------------|-----------------------|------------------------|--------------------------------|----------------------|---------------------------|---------------------------|-----------------------------|------------------------|---------------------|----------------------|

□ 5. Document ID: US 20030129718 A1

L4: Entry 5 of 16

File: PGPB

Jul 10, 2003

PGPUB-DOCUMENT-NUMBER: 20030129718

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030129718 A1

TITLE: Amylase variants

PUBLICATION-DATE: July 10, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|--------------------------|-----------|-------|---------|---------|
| Andersen, Carsten | Vaerlose | | DK | |
| Borchert, Torben Vedel | Birkeroed | | DK | |
| Nielsen, Bjarne Ronfeldt | Virum | | DK | |

US-CL-CURRENT: 435/183; 510/392

| | | | | | | | | | | | | |
|----------------------|-----------------------|--------------------------|-----------------------|------------------------|--------------------------------|----------------------|---------------------------|---------------------------|-----------------------------|------------------------|---------------------|----------------------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KMC | Draw |
|----------------------|-----------------------|--------------------------|-----------------------|------------------------|--------------------------------|----------------------|---------------------------|---------------------------|-----------------------------|------------------------|---------------------|----------------------|

□ 6. Document ID: US 20020155574 A1

L4: Entry 6 of 16

File: PGPB

Oct 24, 2002

PGPUB-DOCUMENT-NUMBER: 20020155574

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020155574 A1

TITLE: Alpha-amylase mutants with altered properties

PUBLICATION-DATE: October 24, 2002

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|-----------------------|---------------|-------|---------|---------|
| Thisted, Thomas | Rungsted Kyst | | DK | |
| Kjaerulff, Soren | Vanlose | | DK | |
| Andersen, Carsten | Vaerloese | | DK | |
| Fuglsang, Claus Crone | Niva | | DK | |

US-CL-CURRENT: 435/202; 435/203, 435/320.1, 435/325, 435/69.1

| | | | | | | | | | | | | |
|----------------------|-----------------------|--------------------------|-----------------------|------------------------|--------------------------------|----------------------|---------------------------|---------------------------|-----------------------------|------------------------|---------------------|----------------------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KMC | Draw |
|----------------------|-----------------------|--------------------------|-----------------------|------------------------|--------------------------------|----------------------|---------------------------|---------------------------|-----------------------------|------------------------|---------------------|----------------------|

□ 7. Document ID: US 20020123124 A1

L4: Entry 7 of 16

File: PGPB

Sep 5, 2002

PGPUB-DOCUMENT-NUMBER: 20020123124

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020123124 A1

TITLE: Highly productive alpha-amylases

PUBLICATION-DATE: September 5, 2002

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|-------------------|----------|-------|---------|---------|
| Araki, Hiroyuki | Haga-gun | | JP | |
| Endo, Keiji | Haga-gun | | JP | |
| Hagihara, Hiroshi | Haga-gun | | JP | |
| Igarashi, Kazuaki | Haga-gun | | JP | |
| Hayashi, Yasuhiro | Haga-gun | | JP | |
| Ozaki, Katsuya | Haga-gun | | JP | |

US-CL-CURRENT: 435/202; 435/320.1, 435/325, 435/69.1, 536/23.2[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#) | [Claims](#) | [KNC](#) | [Draw](#)

□ 8. Document ID: US 20020068352 A1

L4: Entry 8 of 16

File: PGPB

Jun 6, 2002

PGPUB-DOCUMENT-NUMBER: 20020068352

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020068352 A1

TITLE: Alpha-amylase variants with altered 1, 6-activity

PUBLICATION-DATE: June 6, 2002

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY | RULE-47 |
|--------------------------|-------------|-------|---------|---------|
| Svendsen, Allan | Horsholm | | DK | |
| Jorgensen, Christel Thea | Kobenhavn O | | DK | |
| Nielsen, Bjarne Ronfeldt | Virum | | DK | |

US-CL-CURRENT: 435/202; 435/183, 435/195, 435/69.1, 510/392, 510/393[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#) | [Claims](#) | [KNC](#) | [Draw](#)

□ 9. Document ID: US 6743616 B2

L4: Entry 9 of 16

File: USPT

Jun 1, 2004

US-PAT-NO: 6743616
DOCUMENT-IDENTIFIER: US 6743616 B2
** See image for Certificate of Correction **

TITLE: Highly productive alpha-amylases

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Abstract](#) | [Claims](#) | [KOMC](#) | [Drawn D.](#)

10. Document ID: US 6623948 B1

L4: Entry 10 of 16

File: USPT

Sep 23, 2003

US-PAT-NO: 6623948
DOCUMENT-IDENTIFIER: US 6623948 B1

TITLE: Nucleic acid sequences encoding alkaline alpha-amylases

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Abstract](#) | [Claims](#) | [KOMC](#) | [Drawn D.](#)

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| Terms | Documents |
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| L3 AND (MUTANT OR MODIFIED OR VARIANT) | 16 |

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| Generate OAGS | | | | |

Search Results - Record(s) 11 through 16 of 16 returned.

11. Document ID: US 6528298 B1

Using default format because multiple data bases are involved.

L4: Entry 11 of 16

File: USPT

Mar 4, 2003

US-PAT-NO: 6528298

DOCUMENT-IDENTIFIER: US 6528298 B1

TITLE: .alpha.-amylase mutants

DATE-ISSUED: March 4, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---------------------------|--------------------|-------|----------|---------|
| Svendsen; Allan | Birkerod | | | DK |
| Borchert; Torben Vedel | Copenhagen | | | DK |
| Bisgard-Frantzen; Henrik | Bagsvaerd | | | DK |
| Outtrup; Helle | Ballerup | | | DK |
| Nielsen; Bjarne Ronfeldt | Virum | | | DK |
| Nielsen; Vibeke Skovgaard | Bagsv.oe butted.rd | | | DK |
| Hedegaard; Lisbeth | Skodsborg | | | DK |

US-CL-CURRENT: 435/202; 435/183, 435/200, 435/201, 435/252.3, 435/320.1, 435/69.1,
536/23.2, 536/23.7

| | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|--------|------|-------|-----|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Drawn | Des |
|------|-------|----------|-------|--------|----------------|------|-----------|--------|------|-------|-----|

12. Document ID: US 6361989 B1

L4: Entry 12 of 16

File: USPT

Mar 26, 2002

US-PAT-NO: 6361989

DOCUMENT-IDENTIFIER: US 6361989 B1

TITLE: .alpha.-amylase and .alpha.-amylase variants

| | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|--------|------|-------|-----|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Drawn | Des |
|------|-------|----------|-------|--------|----------------|------|-----------|--------|------|-------|-----|

13. Document ID: US 6309871 B1

L4: Entry 13 of 16

File: USPT

Oct 30, 2001

US-PAT-NO: 6309871

DOCUMENT-IDENTIFIER: US 6309871 B1

TITLE: Polypeptides having alkaline .alpha.-amylase activity[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KOMC](#) | [Drawn D](#)

□ 14. Document ID: JP 2002112792 A

L4: Entry 14 of 16

File: JPAB

Apr 16, 2002

PUB-NO: JP02002112792A

DOCUMENT-IDENTIFIER: JP 2002112792 A

TITLE: HIGHLY PRODUCTIVE α -AMYLASE[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KOMC](#) | [Drawn D](#)

□ 15. Document ID: US 20040265959 A1, EP 1199356 A2, JP 2002112792 A, CN 1348000 A, US 20020123124 A1, US 6743616 B2

L4: Entry 15 of 16

File: DWPI

Dec 30, 2004

DERWENT-ACC-NO: 2002-354203

DERWENT-WEEK: 200503

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TITLE: New mutant alpha-amylase, useful in detergent compositions, comprises increased productivity when prepared recombinantly and better resistance to heat[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KOMC](#) | [Drawn D](#)

□ 16. Document ID: US 6486113 B1, WO 9844126 A1, EP 985731 A1, CN 1251613 A, JP 10541455 X

L4: Entry 16 of 16

File: DWPI

Nov 26, 2002

DERWENT-ACC-NO: 1998-542707

DERWENT-WEEK: 200281

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TITLE: Bacillus derived alpha amylase having mutation at position 202 - has optimum pH in alkaline conditions and high tolerance to oxidants, useful for production of detergent compositions[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KOMC](#) | [Drawn D](#)[Clear](#)[Generate Collection](#)[Print](#)[Fwd Refs](#)[Bkwd Refs](#)[Generate OACs](#)[Terms](#)[Documents](#)

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